

Listing of Claims:

Please amend claims 1, 4, 5, 6, 21 and 22.

1. (Currently Amended) A method of identifying relationships among physiological traits determinants within a set of physiological traits determinants, comprising:

- (a) determining a correlation value between two physiological traits determinants for all possible pairs of physiological traits determinants within said set,
- (b) constructing a correlation matrix using said correlation values;
- (c) constructing a clustered correlation matrix from said correlation matrix by clustering said physiological traits determinants using a clustering method, and
- (d) identifying relationships among said physiological traits determinants from said clustered correlation matrix.

2. (Original) The method of claim 1, wherein said clustering method is selected from the group consisting of clustering based on statistical methods, clustering based on known physiological relationships, and clustering based on known genetic linkages.

3. (Original) The method of claim 1, further comprising constructing a colored clustered correlation matrix using a plurality of colors, wherein each color indicates a selected degree of correlation, and wherein patterns of colors in said clustered correlation matrix are used to identify said relationships.

4. (Currently Amended) The method of claim 1, wherein said set of physiological traits determinants comprises 10 traits determinants.

5. (Currently Amended) The method of claim 1, wherein said set of physiological traits-determinants comprises 20 traits ~~determinants~~.

6. (Currently Amended) The method of claim 1, wherein said set of physiological traits-determinants comprises 50 traits ~~determinants~~.

21. (Currently Amended) A computer-readable medium having stored thereon computer-readable instructions for performing the method of claim 1, ~~7, 10, 17, or 18~~.

25. (Currently Amended) The method of claim 1, wherein a first member of each pair of physiological traits ~~determinants~~ is derived from an individual and a second member of each pair of physiological traits ~~determinants~~ is the mean of physiological determinants from a population of individuals, and wherein determining each said correlation value comprises measuring the difference between said first member and said second member.